

**NOM-EM-011-SCT2/1999**

**FOR THE TRANSPORT OF HAZARDOUS  
MATERIALS AND WASTES**

**REQUIREMENTS FOR THE TRANSPORT OF  
HAZARDOUS SUBSTANCES, MATERIALS OR  
WASTES IN LIMITED QUANTITIES**

**SECRETARIAT OF COMMUNICATIONS AND TRANSPORT**

**EMERGENCY OFFICIAL MEXICAN STANDARD , NOM-EM-011-SCT2/1999  
"REQUIREMENTS FOR THE TRANSPORT OF HAZARDOUS SUBSTANCES,  
MATERIALS AND WASTES IN LIMITED QUANTITIES"**

AARON DYCHTER POLTOLAREK, Undersecretary of Transport and Chairman of the National Consultative Committee for Standardization of Land Transport, base on Articles 36 part I, XII, XXV and XXVII of the Organic Act of the Federal Public Administration; 1<sup>st</sup>., 38 part II, 40 parts I, III, and XVII, 41, 43 and 48 of the Federal Act on Metrology and Standardization; 5<sup>th</sup>. Part VI of the Act of Roads, Bridges and Federal Autotransportation; 28 of the Regulations for the Federal Act on Metrology and Standardization; 48 of the Regulations for the Land Transport of Hazardous Materials and Wastes; 4<sup>th</sup>. And 6<sup>th</sup>. Part XII of the Internal Regulation of the Secretariat of Communications and Transport; and all other applicable legal ordainments; and

**C O N S I D E R I N G**

That the Internal Regulation of the Secretariat of Communications and Transport in its Article 19, part X, establishes the faculty for the Secretariat to issue Official Mexican Standards, as well as those required in case of emergency, including those related to the transport of hazardous materials and wastes.

That is a priority to reduce and diminish risks of accidents involving hazardous materials and wastes on federal jurisdiction roads.

That the transport of hazardous substances, materials and wastes in limited quantities, must be performed according to the class and division of risk belonging to, as well as to the quantity to be transported.

That as a result of the works toward the implementation of the Free Trade Agreement between Mexico, United States and Canada, on chapter IX, " Measures Relative to Standardization" Article 905, "Use of International Standards", points out that each one of the parties will utilize as a base for their own measures, the existing pertinent International Standards or those of imminent adoption. As far as Hazardous Materials transport is concerned, the Recommendations on the Transport of Dangerous Goods from the United Nations Organization will be adopted as a base, along with other Standards that the parties may agree upon.

That in order to ensure compliance of the former objectives, is necessary to establish general provisions, as well the limited quantities for classes 2, 3, 4, 5, 6, 8, and 9, in order to protect the general means of communication and the safety of their users.

This Emergency Official Mexican Standard **NOM-EM-011-SCT2/1999**, **"REQUIREMENTS FOR THE TRANSPORT OF HAZARDOUS SUBSTANCES, MATERIALS AND WASTES IN LIMITED QUANTITIES"**, cancels Official Mexican Standard NOM-011-SCT2/1994, published in the Official Register on September 25, 1995, as well as official circulars 104.-4058 and 103.-4946 of september 9 and october 23 of 1996, respectively.

Mexico, D.F., (no date)

THE UNDERSECRETARY OF TRANSPORT AND  
CHAIRMAN OF THE NATIONAL CONSULTATIVE COMMITTEE  
FOR STANDARIZATION OF LAND TRANSPORT

AARON DYCHTER POLTOLAREK

## **I N D E X**

- 1. PURPOSE**
- 2. APPLICABILITY**
- 3. REFERENCES**
- 4. DEFINITIONS**
- 5. GENERAL PROVISIONS**
- 6. PROCEDURE FOR THE CONFORMITY EVALUATION OF THIS OFFICIAL MEXICAN STANDARD.**
- 7. BIBLIOGRAPHY**
- 8. HARMONIZATION WITH INTERNATIONAL STANDARDS**
- 9. COMPLIANCE**
- 10. ENFORCEMENT**
- 11. SANCTIONS**
- 12. VALIDITY**
- 13. TRANSITORY**

**EMERGENCY OFFICIAL MEXICAN STANDARD NOM-EM-011-SCT2/1999**  
**“REQUIREMENTS FOR THE TRANSPORT OF**  
**HAZARDOUS SUBSTANCES, MATERIALS AND WASTES**  
**IN LIMITED QUANTITIES”**

**1. PURPOSE.**

This Emergency Official Mexican Standard has, as an objective, to establish provisions which are prescribed for the transport in limited quantities of hazardous substances, materials and wastes of classes 2, 3, 4, 5, 6, 8 and 9, in order to protect the general means of communication and the safety of their users.

**2. APPLICABILITY.**

This Emergency Mexican Official Standard applies obligatorily to shippers, carriers and consignees of the hazardous substances, materials and wastes transported throughout the general means of land communication.

**3. REFERENCES.**

For the proper applicability of this Standard, it is necessary to consult the following Official Mexican Standards:

NOM-002-SCT2	LIST OF THE MOST COMMONLY TRANSPORTED HAZARDOUS SUBSTANCES AND MATERIALS.
NOM-003-SCT	CHARACTERISTICS OF THE LABELS OF PACKAGES AND PACKAGINGS DESTINED TO TRANSPORT HAZARDOUS SUBSTANCES, MATERIALS AND WASTES.
NOM-004-SCT	IDENTIFICATION SYSTEM FOR UNITS DESTINED TO THE TRANSPORT OF HAZARDOUS SUBSTANCES, MATERIALS AND WASTES.
NOM-024-SCT2	SPECIFICATIONS FOR THE CONSTRUCTION AND RECONSTRUCTION, AS WELL AS TESTING METHODS FOR PACKAGES AND PACKAGINGS FOR HAZARDOUS SUBSTANCES, MATERIALS AND WASTES.
NOM-027-SCT2	GENERAL PROVISIONS FOR THE PACKAGES, PACKAGINGS, AND TRANSPORTATION OF HAZARDOUS SUBSTANCES, MATERIALS AND WASTES OF DIVISION 5.2, ORGANIC PEROXIDES.

**4. DEFINITIONS.**

For purposes of this Emergency Official Mexican Standard, the following definitions are set forth:

**Limited quantity.-** The maximum amount of a hazardous substance, material or waste, of certain classes, that may be transported, presenting a minor danger, on packages and packagings of the specified type in the corresponding standard.

**Package and Packaging Groups.-** The packages and packagings according to the hazard of the substances, are classified in the following groups;

- Group I.- For very dangerous substances
- Group II.- For medium dangerous substances
- Group III.- For minor dangerous substances

## **5. GENERAL PROVISIONS.**

5.1 The regulation for the land transport of hazardous materials and wastes, is equally applied for the transport of limited quantities of substances, materials or wastes, with the exceptions expressly set forth in this standard.

5.2 The provisions of this Emergency Official Mexican Standard, are applicable to the transport of hazardous substances, materials and wastes in limited quantities in the following classes and divisions:

- a) Class 2 Gases with no principal risk of flammability, corrosiveness, oxidizing or toxicity, as well as those that present as a secondary risk, any of the above.
- b) Class 3 Flammable liquids.
- c) Class 4 Flammable solids of division 4.1 not being of spontaneous reaction and desensitized explosives.
- d) Class 5 Organic Peroxides of division 5.2, when these are part of testing equipment, repair or a mixture of similar packages that may contain up to 1 Kg. or 1.5 liters of organic peroxides of types D, E or F that do not require temperature control.
- e) Class 6 Toxics of division 6.1.
- f) Class 8 Corrosives.
- g) Class 9 Miscellaneous. In this group, classification is made of those hazardous substances, materials or wastes presenting a different risk to all other classes.

5.2.1 The maximum authorized quantity limit for hazardous substances, materials or wastes contained in the inner package and packaging is specified according to its risk class on Tables 1 and 2 of this standard.

5.3 Except for what is specified on paragraph 5.2, this limited quantities standard is not applicable for the transport of hazardous substances, materials or wastes that follows:

- a) Class 1 Explosives.
- b) Class 2 Flammable, corrosive, toxic or poisonous gases (aerosols are not included).
- c) Class 4 Auto-reactive substances (spontaneous reaction) or those related with them, as well as desensitized explosives of division 4.1.  
  
Substances of division 4.2 that may produce spontaneous combustion.
- d) Class 5 Organic peroxides of division 5.2
- e) Class 6 Biological-infectious substances, division 6.2
- f) Class 7 Radioactive materials.
- g) Hazardous substances, materials or waste corresponding to Packing Group 1

5.4 Hazardous substances, materials or wastes transported in accordance to this Emergency Official Mexican Standard, must be transported only on inner packages and packagings, placed on adequate outer packages and packagings. All of the inner and/or outer packages and packagings must bear an identification label, when surpassing the specified weight to qualify them as limited quantity.

The total gross weight of the outer package and packaging must not exceed 30 Kg. The maximum limit of the package does not refer to the vehicle unit capacity.

5.4.1 It is not, however, considered necessary the use of inner packages for the transport of articles such as aerosols or containers carrying less than 1 Kg or 1.5 liters of gases.

5.4.2 Limited quantities of hazardous materials must be packed in packages and packagings that are adequate to contain a given material. They should not show evidence of changes in its structure and must be free of failures or deterioration that may be the cause for spontaneous spills or leakages during its transportation. These must be constructed and closed both for their transportation as well as to prevent any leakage that may be caused under normal transportation conditions, due to vibration or by changes in temperature, humidity or pressure (e,gr.: as a result of changes in altitude). No amount of hazardous material must be adhered to the external package or packaging. This provision applies to packages and packagings that are new or used.

- 5.4.3 The parts and components of packages and packagings that are in direct contact with the hazardous material, should not be affected by the chemical substance or other action. When deemed necessary, they should have an inner liner or treatment against these actions. No elements or constituents should be incorporated in the materials for packaging that are capable of dangerously reacting with the contents thus creating dangerous products or significantly weaken it.
- 5.4.4 When filling containers and packagings with liquids, enough space must be left to ensure that no leakage may occur as a result of an expansion of the liquid, caused by temperature changes during transportation. Liquids must not fill completely a package or packaging at a temperature of 55° C.
- 5.4.5 The inner packages and packagings must be packed in outer packages and packagings in such a manner that under normal transport conditions, they should not be broken, punctured or produce spills of their contents inside the outer package and packaging. Inner packages or packagings susceptible to easily break, such as those made of glass, porcelain or certain plastic materials, etc., must be properly cushioned inside the outer packages and packagings with a suitably shock absorbing material. Any leaks of the contents should not disable substantially the shock absorbing properties of the outer packaging material.
- 5.4.6 Packages and packagings to contain substances or materials humidified or diluted must be hermetic in such a way that the percentage of liquid, (water, solvent or stabilizer) does not decrease the established limits for its transportation.
- 5.4.7 When pressure may develop within a package or packaging due to gas emission of its contents (as a result of increase in temperature or any other cause), the package or packaging must be provided with a venting device, taking in consideration that the expelled gas will not cause risks due to its toxicity, flammability, etc. due to the quantity expelled. Venting devices must be designed, so that when the package or packaging is being transported, liquid spills or leakages can be avoided, as well as foreign matter getting into it, during normal transportation conditions.
- 5.4.8 Liquid hazardous substances, materials, or wastes of class 8, whose inner package or packaging correspond to group II, packed in glass, porcelain, clay, earthenware or stoneware, must be placed on an intermediate package that is compatible and rigid.
- 5.5 Containers provided with adjustable elastic bands complying with the provisions indicated on paragraph 5.4, are accepted as outer packages or packagings. The total mass of the package or packaging must not exceed 20 Kg. When this weight is bigger, it is necessary to identify the package or packaging with the adequate label.



- 5.6 Miscellaneous hazardous substances or materials in limited quantities may be placed in the same outer packaging, providing that that these materials will not dangerously interact in case of a spill or leakage. It is not necessary to apply the segregation requisites of hazardous materials on a unit or container.
- 5.7 Packages and packagings for hazardous substances or materials being transported according to these provisions, do not require labeling, nor placarding, nor bear the U.N. certifying marking.
- 5.8 Besides the specifications established within the Official Mexican Standard NOM-043-SCT2/1995, in relation to the Shipping Document of hazardous substances, materials and wastes, the words "limited quantity" or else the abbreviation "CANT. LTDA." ("LTD. QTY.") must be included also on the shipping description.
- 5.9 Limited quantities of Hazardous substances, materials or wastes, for either personal or domestic use that are packed, packaged and distributed in a way for further distribution for its sale by retailers or in adequate manner for that purpose, will be exempted of the obligation to bear placards, identification labels, markings bearing the official designation for transport, the U.N. number in the packages or packagings, as well as the related documentation requisites for the transport of hazardous substances, materials and wastes.

**TABLE 1. MAXIMUM QUANTITATIVE LIMITATIONS PER INNER PACKAGE OR PACKAGING OF HAZARDOUS SUBSTANCES AND MATERIALS OF CLASSES 2, 3, 4, 5, 6 AND 8**

CLASS OR DIVISION	PACKING GROUP	PHISICAL STATE	MAXIMUM QUANTITY PER INNER PACKAGE
2	-	Gas	120 ml (a)(maximum volume inside the plastic or metal container or package)
2	-	Gas	120 ml. (maximum volume inside the glass container or package)
3	II	Liquid	1 liter (metal)
3	III	Liquid	5 liters
4.1	II	Solid	500 g
4.1	III	Solid	3 kg.
4.3	II	Liquid or Solid	500 g
4.3	III	Liquid or Solid	1 Kg
5.1	II	Liquid or Solid	500 g
5.1	III	Liquid or Solid	1Kg
5.2 (b)	II	Solid	100 g
5.2 (b)	II	Liquid	25 ml.
5.2 ( c)	II	Solid	500 g
5.2 ( c)	II	Liquid	125 ml.
6.1	II	Solid	500 g.
6.1	II	Liquid	100 ml.
6.1	III	Solid	3 Kg.
6.1	III	Liquid	1 liter
8	II	Solid	1 Kg.
8	II	Liquid	500 ml. (d)
8	III	Solid	2 Kg
8	III	Liquid	1 liter

- a) This limit may be increased to 1,000 ml. for aerosols not containing toxic substances.
- b) Organic peroxides must be type B or C and not requiring temperature control.
- c) Organic peroxides must be type D, E or F, and not requiring temperature control.
- d) Inner packages and packagings made of glass, porcelain, clay or stoneware or earthenware, must be covered with an intermediate rigid compatible package or packaging

**TABLE 2. QUANTITY LIMITATIONS FOR CLASS 9**

<b>U.N NUMBER</b>	<b>OFFICIAL DESIGNATION FOR TRANSPORTATION</b>	<b>MAXIMUM QUANTITY PER INNER PACKAGE OR PACKAGING</b>
1941	DIBROMODIFLUOROMETHANE	5 liters
1990	BENZALDEHYDE	5 liters
2071	AMMONIUM NITRATE FERTILIZERS	5 kg
3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S	5 kg
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S	5 liters

## **6. PROCEDURE FOR THE CONFORMITY EVALUATION OF THIS EMERGENCY OFFICIAL MEXICAN STANDARD.**

Based upon articles 38 part V, 68 and 73 of the Federal Act on Metrology and Standardization; Part IV, 40 and 70 of the Act of Roads, Bridges and Federal Autotransportation; 48 of the Regulations for the Land Transport of Hazardous Materials and Wastes and 19 parts II, X and XXII of the Internal Regulation of the Secretariat of Communications and Transport, verification of compliance of this Emergency Official Mexican Standard will be performed in accordance with the following:

For the understanding of this procedure it will be understood that :

**Department.-** Secretariat of Communications and Transport.

**D.G.A.F.-** Directorate General of Federal Autotransportation.

**Dictum.-** Document issued by the Department or the Verification Unit, through which determination is made on the degree of compliance for this Official Mexican Standard.

**Conformity Evaluation.-** Determination of the degree of compliance with this Official Mexican Standard.

**Act.-** Federal Act on Metrology and Standardization.

**Verification Unit.-** The accredited person or company which is approved according to what is established in the Act.

**Verification.-** Visual inspection and verification of documents in order to evaluate the conformity with this Official Mexican Standard.

## **VERIFICATION.**

The verification of this Emergency Official Standard will be made through documentary revision and visual inspection, or else, by applying the most advanced technologies available in the market.

- Inspection will be performed during operation, on previously selected strategical points, determined by the Secretariat of Communications and Transport on the federal highway network; in the manufacturers plant installations, prior to starting the vehicle units for the intended trip and on the carriers installations prior to start their services.
- During operation, compliance will be verified by the Preventive Federal Police, General means of Communication Inspectors, or duly credited personnel by the Department.
- All units of autotransport referred to in this Emergency Official Mexican Standard will be subject to inspection, while in transit on roads and bridges of federal jurisdiction.
- Inspection will be performed in such a manner, to avoid traffic congestion on the highway.
- Duly credited and approved personnel from the Secretariat of Communications and Transport and Inspection Units, will verify compliance with this Emergency Official Mexican Standard, through verification of documents and visual inspection, through dictum on official letterhead in which is stated that no hazardous substances, materials and wastes other than the ones pointed out on paragraph 5.2 of this standard, as well as the quantitative limits on Tables 1 and 2 of the inner packages are not exceeded as well as the total gross weight of the outer packages and packagings.
- At the Plant, or by their request, properly accredited personnel from the Department and/or Inspection Units will perform inspections.
- In those cases in which conditions set forth within this standard prove to be different to the established ones, as a result of the inspection, the Inspection Unit will notify the carrier that the shipment is not considered as one qualified as of limited quantities. These results will be also notified to D.G.A.F.

## **7. BIBLIOGRAPHY**

Recommendations on the Transport of Dangerous Goods, issued by the United Nations Organization, Ninth revised edition, New York 1995.

## **8. HARMONIZATION WITH INTERNATIONAL STANDARDS**

This Emergency Official Mexican Standard, is equivalent with the Recommendations on the Transport of Dangerous Goods of the United Nations, Chapter 15, Ninth revised edition, New York, 1995.

## **9. COMPLIANCE**

Based on Provisions within the Regulations for the Land Transport of Hazardous Materials and Wastes, this Emergency Official Mexican Standard is obligatory.

## **10. ENFORCEMENT**

The Secretariat of Communications and Transport is the competent authority to enforce compliance of this Emergency Official Mexican Standard.

## **11. SANCTIONS**

Non compliance of provisions contained in this Official Mexican Standard will be sanctioned by this Secretariat, according with what is established in the Regulations for the Land Transport of Hazardous Materials and Wastes, as well as other legal ordainments that may be applicable, with no interference from other sanctions applied by other agencies of the Federal Government, exercising their attributions or of the resultant civil or penal resultant responsibilities.

## **12. VALIDITY**

This Official Mexican Standard will be in effect the next day of its publication in the Official Registry and will be valid for a period of 6 months.

## **13. TRANSITORY**

This Standard abrogates Official Mexican Standard NOM-011-SCT2/1994 "Conditions for the transport of hazardous substances, materials and wastes in limited quantities", as well as, all those provisions issued by this Department which were based upon this standard, including official circulars No. 104.-4058 and 104.-4946 of September 9 and October 23 of 1996.

Mexico, D.F., October 15, 1999.

**THE UNDERSECRETARY OF TRANSPORT AND  
CHAIRMAN OF THE NATIONAL CONSULTATIVE  
COMMITTEE OF STANDARDIZATION OF LAND  
TRANSPORT**

**AARON DYCHTER POLTOLAREK**